

Application Serial No: 10/552,301
Responsive to the Office Action mailed on: December 12, 2007

REMARKS

This Amendment is in response to the final Office Action mailed on December 12, 2007. Claims 1 and 4-6 are amended. Claim 1 is amended editorially and is supported, for example, in the specification at page 5, lines 17-22 and page 16, lines 5-9 and in Figures 1, 2 and 10. Claim 1 is further amended editorially to include features of claims 2 and 3. Claim 4 is amended editorially to track the amendments to claim 1. Claim 5 is amended editorially and is supported, for example, in the specification at page 7, lines 16-26 and in Figure 3C. Claim 5 is further amended to include features of claim 8. Claim 6 is amended editorially to track the amendments to claim 5. Claims 2, 3, 8 and 9 are cancelled without prejudice or disclaimer. No new matter is added. Claims 1 and 4-7 are pending.

§102 Rejections:

Claims 1-9 are rejected as being anticipated by Toshihiro (JP 08-064401). This rejection is traversed.

Claim 1 is directed to a chip resistor that requires, among other features, a chip-shaped resistor element that has a pair of side surfaces spaced from each other to flank an electrode-forming surface, a primary insulating layer and additional insulating layers covering the side surfaces of the resistor element. An advantage of these features is that they prevent molten solder from adhering to the side surfaces of the resistor element.

Toshihiro does not disclose or suggest these features. Toshihiro is directed to a chip-like electronic part that includes a resistor layer (4), a ceramic substrate (1), electrode layers (2, 3 and 6) and an insulation layer (8) separated from the resistor layer (4) (see Abstract). However, nowhere does Toshihiro disclose or suggest that the resistor element (4) has a pair of side surfaces spaced from each other to flank the ceramic substrate (1) as required by the chip-shaped resistor element and the electrode-forming surface of claim 1. Also, even if the resistor element (4) had a pair of side surfaces, nowhere does Toshihiro disclose or suggest additional insulating layers covering the side surfaces of the resistor element (4). For at least these reasons claim 1 is not suggested by Toshihiro and should be allowed. Claim 4 depends from claim 1 and should be allowed for at least the same reasons.

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Claim 5 is directed to a method for manufacturing a chip resistor that requires, inter alia, forming a plurality of insulating layers on an electrode-forming surface of a plate-shaped resistor element material and forming a conductive layer on the electrode-forming surface at a region where the insulating layers are not formed. Claim 5 also requires dividing the resistor element material into a plurality of resistor elements in the form of a chip, where the division of the resistor element material is performed by punching.

Toshihiro does not disclose or suggest these features. Toshihiro discloses that the resistor element (4) is made of resistance paste and is formed on an appropriately sized ceramic substrate (1) that is prepared in advance (see Abstract of Toshihiro). Nowhere does Toshihiro disclose or suggest forming a plurality of insulating layers on the ceramic substrate (1) of a plate-shaped resistor element material and forming a conductive layer on the electrode-forming surface at a region where the insulating layers are not formed. Accordingly, Toshihiro cannot disclose or suggest that the resistor element (4) is divided into a plurality of chip-shaped resistor elements by punching, as required by the method of claim 5. For at least these reasons claim 5 is not suggested by Toshihiro and should be allowed. Claims 6 and 7 depend from claim 1 and should be allowed for at least the same reasons.

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Conclusion:

Applicant respectfully asserts that claims 1 and 4-7 are in condition for allowance. If a telephone conference would be helpful in resolving any issues concerning this communication, please contact Applicant's primary attorney-of record, Douglas P. Mueller (Reg. No. 30,300), at (612) 455-3804.



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Respectfully submitted,

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